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e-mail: [flph@star-co.net.kp](mailto:flph@star-co.net.kp)

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## Supreme Leader Kim Jong Un inspects Samjiyon County

Kim Jong Un, chairman of the Workers' Party of Korea, chairman of the DPRK State Affairs Commission and supreme commander of the Korean People's Army, gave field guidance to Samjiyon County.

He was accompanied by Jo Yong Won, deputy department director of the WPK Central Committee.

The Supreme Leader looked round the construction site of the Samjiyon county town to learn about the progress and state of the construction project.

The builders have made great progress in the project despite the biting cold in winter in the northern highlands, he said, adding that the appearance of the county town area has changed again beyond recognition in several months. If the project is pushed forward at such a speed and in such a spirit, it can be finished within the fixed time as the Party planned, he said.

He stressed the need to set accurate targets for each month and process of the second-stage construction projects and mount a dynamic campaign to complete them as planned without fail by inspiring all the builders to this end and to guide and supervise the construction responsibly.

The Supreme Leader visited the family of triplet sisters who moved to a new house built in the county town.

After hearing that the triplet



sisters left their native Pyongyang for the Mt Paektu area to join the construction of Paektusan Hero Youth Power Station and settled down in Samjiyon County with a firm determination to spruce up Chairman Kim Jong Il's native county, he said that they are commendable and their deed is an excellent virtue and model of young people produced by the times, and asked them to write a letter to him when they meet good spouses and marry them as he gave a pep talk to them.

He then made the rounds of the Samjiyon Blueberry Drink Factory and Samjiyon County Junior Middle School whose construction is nearing completion, saying that all of them were flawlessly constructed.

That day he inspected the Samjiyon

Potato Farina Factory again.

He acquainted himself with the operation of the factory including the installation of potato-processing facilities and the production of potato farina as he looked round several workplaces.

As the Party put a great deal of energies into the building of the factory with a firm determination, it is important to properly run it so that it can benefit not only the county population but also other people across the country, he said, and gave instructions on how to improve the management of the factory and its business strategy.

Feasting his eyes on the view of several thousand tons of potato farina stacked up like a mountain with a broad smile on his face, he said with great satisfaction that the piles of potatoes stored in the

storehouse last year have been turned into a mountain of potato farina and that it looks great.

He said it is important to inform the people of recipes for making various foods with potato farina and give wide publicity to its advantages and effectiveness so that they can widely use it in their dietary life.

He repeatedly told the leading officials of the Samjiyon County construction headquarters and provincial and county Party committees and other accompanying officials that the reconstruction of

Samjiyon county is a fierce class and political struggle against hostile forces that are trying to check the advance of the DPRK and that victory in the project will be a demonstration of its might and economic potentials.

He called on them to encourage the entire Party and the whole country as well as builders to complete the Samjiyon County construction project till the 75th anniversary of the Workers' Party of Korea, thereby turning the county, the "garden of the native home of the revolution", into a mountainous city encapsulating modern civilization, a county with distinctive features no one can imitate and the richest county in the country.

Compiled from KCNA





## LEADING ARTICLE

# Leader builds up the nation to push socialist construction

The 14th DPRK Supreme People's Assembly will meet for the first session on April 11.

The meeting, which will be another important occasion of historic significance in the building of a socialist power, is to elect the chairman of the State Affairs Commission, the top political leadership organ of the state power.

With the significant moment just in the offing, all the Korean people are filled with the feeling of absolute trust and support and profound reverence for Supreme Leader Kim Jong Un.

Over the past seven years the Supreme Leader lifted the overall national strength of socialist Korea to the highest ever level in national history and put into effect a series of policies for the people, fully demonstrating the political ability and personality of a great statesman and popular leader.

With a firm determination to carry forward the exploits of President Kim Il Sung and Chairman Kim Jong Il for building a socialist state, he strengthened the Workers' Party of Korea and the DPRK government into a powerful staff that guides the socialist cause and a mighty political weapon for the building of a socialist power.

He put forward the policy of modelling the whole Party on

Kimilsungism-Kimjongilism and intensified the work to establish a unified leadership system of the Party. He also built a state leadership system and realized the strict unified leadership of the Party over all state affairs to invariably maintain the popular character of the DPRK and further consolidate the socialist state political system.

The Seventh Congress of the WPK in May 2016 and other Party conferences for strengthening the basic Party organizations he convened were important occasions for giving full play to the militant capacity of the Party and the spiritual strength of the masses of the people.

The Supreme Leader instructed officials to work hard to relieve the people of all signs of mental anguish and resolve all problems arising in their work and life in a responsible manner in the spirit of devotedly serving them, so as to closely rally the broad sections of the people around the Party.

The single-minded unity of the DPRK was the motive force which incomparably enhanced the military might, the level of science and technology and self-reliant economic strength of the country and encouraged the people to usher in an era of Mallima of racing against time and create a series of heroic

legends.

Kim Jong Un built up the scientific and technological capacity and self-reliant economic strength under the unfurled banner of self-development-first principle.

He made sure that a habit of attaching importance to science and technology and talents was established all across the country and provided field guidance to many scientific research institutions and various economic sectors to indicate the directions and ways to lead the world.

As a result, the national programme of making the national economy Juche-oriented, modern and IT-based was pushed ahead dynamically despite the harsh sanctions of the outside forces. Juche-based production systems relying on local efforts, technologies and natural resources were established and many factories and other industrial establishments made marked achievements that exceed the peak year level one after another.

He proposed popular policies continuously, saying that when every corner of the country

is ringing with happy laughter of the people, it is a powerful socialist country.

He set education and public health as the image of socialism, put into force the universal compulsory 12-year education system on an extensive scale despite the difficult conditions of the country and ensured world-class public health institutions sprang up in succession so that the people can enjoy the benefits of healthcare system more and better.

The greatest exploit the Supreme Leader performed is that he further strengthened the self-defensive military capability.

He developed the Korean People's Army into a

revolutionary army of the Party boundlessly faithful to its leadership and the most elite and powerful revolutionary army, and consolidated the defence industry as a powerful one which can make any sophisticated military hardware as it desires.

Seeing the reality, in which the country's military capability has been enhanced to the top level and its position lifted remarkably on the international stage, the Korean people have realized once again the truth that only when they follow the leadership of the Supreme Leader faithfully, can they win victory of socialism and bring forward the rosy future of Korea.

Ri Yong Su



A panoramic view of Pyongyang's Ryomyong Street, which was built under the meticulous guidance of Supreme Leader Kim Jong Un.

## INSPECTION

## Premier inspects rural cooperative farms

Premier Pak Pong Ju, member of the Presidium of the Political Bureau of the Central Committee of the Workers' Party of Korea and vice-chairman of the DPRK State Affairs Commission, inspected cooperative farms in Ongjin County, South Hwanghae Province.

At the Jangsong and Raengjong cooperative farms, he stressed the need to fundamentally improve the work style of officials and raise the rate of mechanization of farm work, thereby attaining the goal of grain production for this year without fail.

The field consultative meetings discussed issues of widely introducing advanced farming methods and technologies, accurately enforcing the field assignment system within the framework of the sub-workteam management system and speeding up the repair of

pumping equipment.

The Premier also inspected the Pyongyang Thermal Power Complex and the Pyongyang Tannery.

Compiled from KCNA



Premier Pak Pong Ju (first from right) visits a cooperative farm in South Hwanghae Province.

## VISIT

## WPK delegation visits Laos, meets Laotian President

A delegation of the Workers' Party of Korea led by Ri Su Yong, member of the Political Bureau and vice-chairman of the WPK Central Committee, visited the Lao People's Democratic Republic.

President Bounnang Vorachith, who is also general secretary of the Central Committee of the Lao People's Revolutionary Party, presented a gift to Supreme Leader Kim Jong Un.

The gift was handed over to Ri Su Yong by Vice-President Phankham Viphavanh, member of the Political Bureau and permanent secretary of the Secretariat of the LPRP Central Committee.

Ri Su Yong met and had a talk with President Bounnang Vorachith.

Ri referred to the stand of the WPK to further develop friendly and cooperative relations between the DPRK and Laos provided by the preceding leaders of the two countries as

required by the new times.

Bounnang Vorachith expressed full support for the efforts made by the WPK and the DPRK government to build a powerful socialist country and ensure peace and security in the Korean peninsula and the rest of the world, saying that the relationship between the two Parties and the two countries are the comradely ties with a long history and tradition.

Talks were held between Ri Su Yong and Phankham Viphavanh.

At the talks, both sides informed each other of the activities of their Parties and exchanged opinions on boosting relations between the two Parties.

Present at the talks from the DPRK side were members of the WPK delegation and the DPRK ambassador to Laos and from the Laotian side the chairman of the Committee for External Affairs of the LPRP

who is member of its Central Committee and other officials concerned.

After the talks, an agreement on exchange and cooperation between the two Parties was signed.

That day, the WPK delegation was invited to a reception given by the LPRP Central Committee.

During his stay in Laos, Ri Su Yong also met and had a talk with Laotian Prime Minister Thongloun Sisoulith.

The prime minister said his country would as ever extend full support to the just cause of the Korean Party and people on regional and international stages, noting that the recent achievements they have made in ensuring peace and stability of the Korean peninsula were entirely attributable to the seasoned and energetic external activities of Supreme Leader Kim Jong Un.

Compiled from KCNA



## STEEL

# Complex steels itself to increase output

The Hwanghae Iron and Steel Complex has recently improved its Juche-oriented iron- and steel-making technologies.

It confirmed the technical indices of microalloying by adding different alloying elements to the foundry ladle and improved the fineness of primary crystal structure by enhancing the degree of crystallinity in molten iron, thus raising the mechanical property of steel 1.2 times. As a result, the actual extraction rate of continuous ingot casting and the acceptable ratio of standard composition of manganese, silicon and sulphur were increased and the scale loss of ferroalloy was reduced significantly.

In addition, the complex introduced a water injector into the production line of heavy rails to raise their quality markedly.

It secured all the facilities needed for the making of water injector which would be used to quench the surface of heavy rails and installed a filter at the air control system to ensure the

operational stability of solenoid and diaphragm valves. It also remodelled the control board for the operation of the system by developing its design and control program in order to improve the quality of heavy rails and double their lifespan.

It upgraded the technical and economic indices of coke-free oxygen blast furnace to produce more pig iron. The cooling pipes of the furnace ceiling were replaced by cooling boxes, and the cast-iron and sheet-metal cooling box production technology was introduced, preventing hydrogen explosion and increasing the operating rate of furnace 1.5 times.

"We will work harder to normalize iron and steel production based on our own technology, fuel and raw materials

so as to further the Juche-orientation of the industry," said Kim Jung Son, assistant chief engineer of the complex.

By Yun Kyong Il PT



SONG YONG SOK / THE PYONGYANG TIMES  
Juche-based iron production is on the rise at the Hwanghae Iron and Steel Complex.

## AFFORESTATION

# Over 100m saplings planted in March

The spring tree-planting campaign is in high gear across the country.

Over 100 million trees were planted nationwide in March, which is treble that of the same period of last year.

Officials of the Ministry of Land and Environment Protection and its affiliated organizations in local areas mapped out elaborate tree-planting plans according to regions and tree species, carefully selected and allotted afforestation areas and got saplings ready.

In the all-inclusive mass movement Pyongyang citizens planted such good tree species as ginkgo and clove and flowering shrubs along streets and in residential areas and parks. Especially, lots of pines were planted in all districts and counties of the capital city.

The spring tree-planting campaign is also being pushed in Kangwon Province, where the Wonsan-Kalma coastal tourist zone project is in full swing.

The province has achieved the daily tree-planting target at 120 percent every day after securing plenty of verdant saplings from tree nurseries and forest management stations.

Wonsan and other cities and Sepho, Anbyon and other

counties have planted 15 million trees more than the corresponding period of last year in thousands of hectares of land.

The provincial people conducted the tree-planting procedures of digging, humus spreading and watering in keeping with regional characteristics and soil composition and as required by the technical regulations, and improved the rate of rooting with the help of an efficient growth stimulant.

The North and South Hwanghae provincial populations also exert themselves in the campaign.

South Hwanghae Province has concentrated efforts on finishing tree planting in the optimal period, thus covering over 6 000 hectares of land with

good species of trees.

North Hwanghae Province rationally allotted manpower and supplied enough saplings according to a phased plan, thereby planting nearly 40 million trees of such tree species as Changsong larch and *Evodia daniellii* Hemsl on the principle of planting trees in suitable season and on suitable land.

South Hamgyong Province planted over 37.5 million trees in over 10 000 hectares in cities and counties. Meanwhile, the campaign is going on in North and South Phyongan and North Hamgyong provinces.

Advanced tree-planting methods have been introduced according to characteristics of specific areas.

Compiled from KCNA



KO RYONG HO / RODONG SINMUN  
People plant saplings during the nationwide spring tree-planting campaign.

## ECONOMY

# First quarterly plans fulfilled

Different economic sectors have carried out the first quarterly plan.

The coal industry sector finished its first quarterly plan by March 28.

This year, the Tokchon Area Coal-mining Complex produced tens of thousands of tons of more coal.

The February 8 Jiktong and Chonsong youth coal mines of the Sunchon Area Youth Coal-mining Complex concentrated on coal mining after securing large areas of coal field by giving definite precedence to tunnelling.

The coal mines in the areas of Pukchang, Tukjang and Kaechon cut a great deal of coal every day from the beginning of the year.

The Namdok youth, Tukjang youth, Joyang, Ryongdung and other coal mines expanded production by raising the proportion of pit work done by machines a step higher.

The Kangdong and Hamnam area coal-mining complexes also got good results in production.

The light industry factories throughout the country produced various consumer goods.

Garment factories under the Pyongyang Municipal Garment Industry Management Bureau improved the technical knowledge and skills of cutters and needle workers and applied rational machine operating methods, thereby fulfilling the quarterly plan of the management bureau 1.3 times.

Bag producers turned out a variety of products that are favoured by consumers.

The Songyo and Aeguk knitwear factories under the Knitting Industry Management Bureau overfulfilled their plans by 1.2 percent and 13.6 percent respectively, while the Sinuiju disabled soldiers' and Kanggye knitwear factories and the Pyongyang Hosiery Factory carried out their production plans ahead of schedule.

Similar successes were also made by many factories under the Textile Machine-building Industry Management Bureau.

The Sinuiju Textile Mill produced over two times of more cotton yarn and cloth than the same period of last year by launching a multi-spindle, multi-loom tending campaign and introducing innovative methods.

The Bureau of Sericulture and Silk Industry overfulfilled the production plan of thread, blanket, velvet and polychromatic silk.

The Pyongyang Kim Jong Suk Silk Mill and the Songchon Silk Mill carried through their daily assignments as they gave priority to the supply of materials.

The Pyongyang and Sinuiju cosmetics factories, the Kanggye Pencil Factory and other daily necessities production units invented and introduced new moulds and efficient tools to boost production.

By Kim Ryong Jin PT

## BUILDING MATERIAL

# Aluminium+ fittings produced

The Mangyongdae Aeguk Aluminium Sash Factory has brought out a variety of new products including adiabatic sash and three-ply glass and wooden sash to meet the global trend of developing aluminium products with good heat insulation by using composite materials consisting of aluminium, plastic and wood.

Of them, the interior window frame of the three-ply glass and sash is made of wood and the exterior is built with aluminium.

"Here, the core is to adjoin sheet aluminium to the wooden frame which is only 6-7 mm thick. It is a key technique for producing quality products while using less wood," said Kim Po Ung, chief engineer of the factory.

This window helps keep internal temperature at over 24 degrees centigrade under the

same condition.

After years of research, the factory developed a method of reducing the thickness of sheet aluminium from 1.8 mm to 1.4 mm, a method of using less wood and other techniques.

The factory has so far developed hundreds of kinds of aluminium frames.

On this basis, it develops different kinds of windows, doors and other products.

In recent years, it set up a process to recycle waste aluminium into high-purity one, developed different kinds of reagents, refashioned a solution spectrum analyser in the PLC system and processed and remodelled various production facilities.

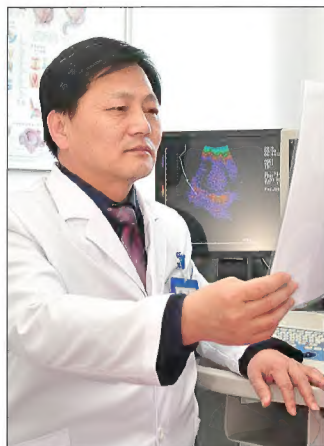
The factory is now getting a series of orders from industrial establishments and individuals.

By Kim Kum Myong PT



## PROFILE

## Four brothers make their marks with new ideas



The family of Ryang Song Hyon (pictured), official of a unit under the State Commission of Science and Technology, is called a "family of inventors" by their neighbours in Pukson-dong No. 2 in Phyongchon District, Pyongyang.

Because his parents and brothers are all holders of certificates of invention.

The family has a total of 29 invention certificates.

Father Ryang Yon Gil spent almost all his career in a small laboratory of the then Pyongyang Dye Factory.

Though he was a promising lecturer in organic chemistry he volunteered to work as a field technician in his 20s in order to solve the problem of dyes for a fibre which was badly needed for the country's economic development. He burnt the midnight oil in the small lab for research into a new dye and finally succeeded in developing the dark blue disperse dye for vinalon. He continued his research with his wife after marriage.

For over four decades the couple came up with 17 inventions of great significance in socialist economic construction, including an additive for construction based on industrial waste, and dozens of valuable technical innovation plans.

The researcher who opted for a factory lab instead of any special research institute was awarded the title of Merited Technician and a doctorate, commanding the respect of all.

"A diploma is not only a certificate of qualification in your special study but also a certificate that requires you to repay the favour shown by the country. You must work hard to create even one more thing for the country," he told each of his sons whenever they graduated from university.

True to their father's earnest request, his four sons researched hard competitively in their fields.

The first to succeed was Ryang Song Dok, researcher at Pyongyang Han Tok Su

University of Light Industry. As a student of the university he interpreted the result of complex synthesis of dozens of kinds of dyestuffs with computer to the surprise of the dye engineering circles, and already at the age of 26 he possessed two invention certificates and participated in the national conference of inventors in 1988 together with his father.

The second son of the family who has the largest number of such certificates among his brothers is now engrossed in the development of a new series of disperse dye.

Song Hyo, deputy director for technology of Pyongyang Municipal People's Hospital No. 3, is well known not only as the developer of a medicine for chronic myelogenous leukaemia but as a man of ability. The third son obtained an academic degree in his 30s and participated in the national conference of scientists and technicians over 20 years ago with his father.

Song Gi, the fourth son and holder of four invention certificates, is also a talented personnel. The expert in analytical chemistry researched accurate and quick ways of analysing foodstuffs.

Song Hyon, the eldest son, is a good guide and helper who inspires his younger brothers to steadily pursue research.

He often tells them that the genuine value of an invention is not calculated by any certificate of introduction or numerical value but appreciated when it brings benefits to the people. The holder of several invention certificates does not make haste with the presentation of a thesis.

The brothers are devoting themselves to resolving scientific and technological problems to contribute to socialist construction.

By Kim Rye Yong PT



Medicines are produced by using marine products at the Songchongang Pharmaceutical Company.

## PROFILE

## Researcher rises to worldwide fame

Last year Prof Im Song Jin, PhD and researcher at the Physics Department of Kim Il Sung University, received a letter and certificate from the selection committee of Who's Who in the World in the United States.

The letter said: "We are pleased to announce that Marquis Who's Who has selected you for our official 2018 Albert Nelson Marquis Lifetime Achievement Award. You have been selected to receive this prestigious award as a result of your hard work and dedication to your profession."

Listed as the top scholar in the DPRK for 2018 in Who's Who in the World, Im Song Jin is also the laureate of February 16 Science and Technology Prize, top award for scientists in the country, in 2016.

Im had already topped the national program contest when he studied at Pyongyang Middle School No. 1. And he successfully finished the undergraduate, postgraduate and natural science postgraduate courses at Kim Il Sung University.

During his university years he focused on the research on nonlinear nano-optics.

He chose it because research on the field of nonlinear nano-optics has been intensified throughout the world as it provides theoretical and methodological groundwork for new-generation information technology, nanotechnology, energy technology and new

materials technology.

He obtained his doctor's degree in his twenties for the research on the dispersion managed soliton transmission which is of great significance in nonlinear optics and published correct research results in a few months as he conducted collaborative research programme at the Max-Born Institute in Germany.

He proceeded to discover a new mechanism of super continuum generation, also known as sunlight laser.

In January 2015 Springer, which is known for the publication of the world's most authoritative international books on advanced science and technology, published booklet "Progress in Nonlinear Nano-optics" in his name and the year after Scientific Reports, scientific journal of Britain's Nature, carried a thesis with Im as number one author.

In the thesis Im brought forward the plasmon's phase modulation which is the focus of basic study worldwide as an essential element in the development of next generation optical information technology.

His research result was verified through experiments at world-renowned institutes and Nature Photonics praised it as a landmark discovery in the field of nonlinear optics.

He published 20-odd world-class achievements made through years-long research in Nature's scientific journal and SCI-class international scientific journals and presented scientific research results at over a dozen international symposiums.

He is a reviewer of international academic journals of OSA, IEEE and the prestigious science publishing company Springer-Nature.

In his early forties, Im is also an educator who has trained a number of PhDs in their twenties.

By Pang Un Ju PT



Im Song Jin, researcher at the Physics Department of Kim Il Sung University, is engrossed in a project.

## PHARMACY

## Medicines made from seafood

"Nano-gold polysaccharide injection is the best medicine"—this is what a man from Songchongang District of Hamhung, South Hamgyong Province, said at the Pyongyang Spring International Trade Fair a few years ago.

The 75-year-old who had

suffered from serious insomnia and diabetes was cured of them after using the injection developed by the Songchongang Pharmaceutical Company.

Located in the coastal city of Hamhung, the company is well-known at home as it has developed various medicines efficacious for the treatment of incurable diseases.

Its pharmacists extract and separate functional physiological activators from such by-products as clam shell and introduce advanced nanotechnology into them to develop medicines and health foods.

Nano-gold polysaccharide injection, nano-gold chitosan solution, nano-gold insam extract, nano-silver antibiotic solution, baicomin injection and other medicines are produced at GMP-qualified production lines.

The nano-gold polysaccharide

injection is made by combining the pharmacological actions of nano-gold with polysaccharide in the world-famous Kaesong Koryo insam and the natural functional physiological activators extracted from seafood.

Users say that it is specially efficacious for the treatment of rheumatic arthritis, fatty liver, chronic hepatitis, liver cirrhosis and insomnia.

The nano-gold chitosan solution is good for curing fatty liver and arteriosclerosis and preventing cancer.

"Our baicomin injection is recognized as a remedy for TB since its treatment period is shorter and it is more effective than DOTS (directly observed treatment short course)," said director Kim Son Sil.

The injection is drawing the attention of experts as it is the fourth-generation medicine with strong penetration and destructive power to focal points.

Lots of medicines and health foods developed by the company got national patents and sell well.

By Chae Hyang Ok PT



## EDUCATION

# New school year begins across the country

The new school year for 2019 has begun.

Ceremonies of the new school year were held on April 1 at schools at all levels across the country.

Party and government officials, students, teachers and parents congratulated new pupils and students, greeting them with thunderous applause and presenting bouquets.

Speakers at the ceremonies said the bells ring more loudly at all schools across the country under the warm care of Supreme Leader Kim Jong Un.

Stressing the necessity for all officials in the field of education and the teaching staff to work harder to give full play to the advantages and vitality of the universal 12-year compulsory education system, they called on all pupils and students to study harder, holding aloft the slogan "Let us learn for prosperous Korea!", and prepare themselves to be competent revolutionary talents who are knowledgeable,

morally impeccable and physically strong and pillars for the building of a powerful socialist country.

After the opening ceremonies, there were the first classes of the new school year.

A ceremony also took place at the Korea Rehabilitation Centre for Children with Disabilities to begin the new school year.

Speakers said that all

children with disabilities in the country would as ever grow up happily, cultivating their dreams and talents to their heart's content under the benevolent care of the socialist system of the country.

The participants looked round the physiotherapy and occupational therapy rooms and other places of the centre.

By Jong Sun Bok PT



New pupils enter Pyongyang Primary School for Orphans as they are congratulated by well-wishers.

KCNA

## PRODUCTION LINE

## Liquid bacillus subtilus natto to be made

The State Bacteria Preservation Institute under the State Academy of Sciences has recently developed a technology of producing liquid bacillus subtilus natto by industrial method for the first time in the country.

A great quantity of such bacillus is needed for the industrial production of fermented bean, or natto.

Such a demand cannot be met by folksy methods or laboratory procedures.

Therefore, researchers of the institute established an advanced production line that mass-produces active bacillus

subtilus natto.

They selected highly active bacterial strains for making natto and found out their culturing properties. And then, they manufactured and installed over 10 facilities including a high-capacity ozone generator and ultraviolet sterilizer needed for the production of the liquid bacillus.

They also developed a program for automatically controlling the temperature, pH and amount of dissolved oxygen of culture fluid, thereby raising the modernization level of the culturing process.

The production line is fully

automated and streamlined from the preparation of raw materials to sterile water making, microbe mass culture and packaging.

"There are only a few countries that possess the technology of producing liquid bacillus subtilus natto on an industrial basis," said lead developer Jon Ho Il.

According to the researchers, the new energy- and labour-saving production line turns out the liquid bacillus with evenly distributed density, and two spoonfuls of it is enough to make 10-15 kg of the fermented bean.

By Jong Hwa Sun PT



PAK CHANG BOK / THE PYONGYANG TIMES

Researchers work on a project to produce highly active liquid bacillus subtilus natto at the State Bacteria Preservation Institute of the State Academy of Sciences.

## SANITATION

## Spring clean-up in full swing

March and April are set as spring clean-up months in the DPRK.

The period was set to create a cultured and hygienic environment and eliminate the cause of various diseases like epidemic.

Clean-up activities are now being conducted briskly to clean and tidy up streets, villages, workplaces and families.

"Primary attention is being paid to heightening the awareness of all residents that creating a healthy environment is an undertaking for themselves so that they would turn out in the clean-up campaign as one," said an official of Ryonmot-dong in Sosong District, Pyongyang.

The dong office has organized work scrupulously by focusing on clearing away the aftermaths of the winter and cleaning up streets, villages and houses.

Officials of the terminal administrative unit have been assigned to several residential blocks to carry out covering of coating materials, whitewashing and site clearing at apartment and public buildings and roadside trees in close contact

with heads of neighbourhood units.

Painting is now going on in the vast area of Ryonmot Park embracing amusement facilities and animal sculptures.

Exemplary neighbourhood units and its members are widely introduced and exhibitions are arranged to fire the zeal of residents.

Similar activities are conducted in other residential areas across the country.

Meanwhile, public health establishments at all levels in Pyongyang conduct hygienic information activities in various forms and methods at the units and residential districts.

Building maintenance stations are carrying out repairs to public buildings and places while making different colours of coating materials to supply them to residents. Water supply and sewage management stations are doing intensive repairs and maintenance to reservoirs, pumping stations and water supply and sewage facilities while disinfecting them.

By Ri Sung Ik PT



CHOE CHUNG SONG / RODONG SINMUN

Gardeners trim shrubs at the Phalgol Park in Mangyongdae District, Pyongyang, in the spring clean-up month.

## COMPETITION

## Technical innovation contest gains momentum

The national technical innovation competition of April 15 technical innovation shock brigades has been conducted since mid-February to mark the 40th anniversary of the start of the April 15 technical innovation shock brigade movement.

The competition, which will last to the end of this year, draws the shock brigades in electric-power, coal, metallurgical, chemical, machine-building, construction and building-materials, mining, agricultural, fishery and light industry sectors, as well as railway

transport.

It aims to push the domestic production of raw and other materials and facilities by relying on locally-available sci-tech forces and resources, update major technical and economic indexes and solve sci-tech problems for successfully implementing the five-year strategy for national economic development.

The contest, which is held with the April 15 technical innovation shock brigades in hundreds of units across the country in attendance, is arousing the expectations

and interest of all scientists, technicians, officials and other working people in the country.

Officials in different economic fields including coal, chemical and machine-building industry sectors held meetings for the start of the competition on the basis of building up the ranks of their shock brigades and setting higher technical innovation goals.

The event will increase the enthusiasm to devise and introduce more valuable technical innovation plans that will substantially contribute to further strengthening the might of the self-supporting economy, implementing the five-year strategy for the development of the national economy and radically improving the peoples' livelihood.

By Ri Myong Jun PT



## APPLICATION

## Quiz apps help broaden children's horizons

Singi quiz apps developed by the Pyongyang Kyemyong Technology Development Company are much favoured by schoolchildren.

The intellectual games programs consist of dozens of parts according to themes and content, including the flags, capitals and locations of countries, riddles, proverbs, four-character idioms and song titles.

They contain information about the flags, capitals and locations of over 200 countries around the world.

They have also the multilingual support function that enables users to play games in Chinese, English, Russian and Japanese as

well as in Korean.

The riddle part comprises more than 500 questions that children face in everyday life.

There are also some 500 proverbs and explanations of them. The part displays Korean adages, which have been handed down since olden times, with blanks to be filled in to complete sentences. The game is interesting and thought-provoking.

In addition, the apps contain the parts of study tour, periodic table and four rules of arithmetic that help children develop their intellectual faculties.

By Ri Sung Ik PT

## WOMEN

## Housewives play their part with artistic activities



RYU KWANG HYOK / THE PYONGYANG TIMES

**Women's union members conduct an artistic motivational activity in Kangso District, Nampho.**

You can feel unusually vibrant atmosphere in Kangso District, Nampho City.

Slogans and other printed matters are seen everywhere in the district, but what is more attractive is the singing and drumbeat by the members of the women's union.

Their artistic motivational activities continue from morning till evening in streets and major workplaces. Such an activity has been conducted for decades.

Residents unanimously say that they are determined to work hard as they see the housewives inspiring them to further efforts, waving flags and beating drums.

The women's union members add a zest to cooperative fields, construction sites, coal mines and other worksites with songs, dances and witty talks as they work together with farmers, builders and coal miners.

"Our coal mine produced 1.2 times more coal over

the same period of last year. This achievement is unthinkable apart from the efforts of women's union members in Sogi-dong. They welcome us every day, rain or shine, when we come in and out of pits and help us with the works in pits, which is a great encouragement to us," said Kim Hyon Nam, coal miner of pit No. 2 in the Kangso Area Coal-mining Complex.

Kim Hye Gyong, women's union member living in Sogi-dong, said: "We feel pride in contributing something to society whenever we see working people who strive to do fine jobs, saying they have been encouraged by our artistic motivational activities."

With the union members taking part in such an activity growing, a competition is held inwardly among local women's union organizations.

By Kim Ryong Jin PT

## ACROBATICS

## Aerial stunts win eight prizes at int'l festivals

Physical stunt "Flyers" was awarded gold prize at the 12th Izhevsk International Circus Festival held in Udmurtiya, Russia, between March 6 and 10.

This meant that the Korean stunt obtained eight top prizes of the international circus festival.

"Flyers" made its debut in 1997. Performed by 10 acrobats, the feat consists of various aerial turns. It culminates in 20-metre flights without safety belt, which require extraordinary skills.

Even after a lapse of over two decades, it remains an exclusive work of the DPRK's National Circus admired by the audience for the performers' bravery, good ensemble and high degrees of difficulty.

In the 12th festival the Korean acrobats flaunted spectacular movements that were not seen previously.

They were the long-distance flight through the ring made by newcomer Ryu Jin Song and the long-distance flight with covered eyes by another recruit Jo Song Nam.

Ryu jumps up from a moving



BY COURTESY OF THE NATIONAL CIRCUS

**Acrobats of the National Circus perform an aerial stunt in the physical acrobatic piece "Flyers".**

swing on the ground and flies through the midair ring and Jo also jumps up from the swing and flies over a human tower in the air with his eyes covered with a band.

The audience lavished praise on the physical stunt and jury members gave it a standing ovation all through the performance as it was so mysterious, fascinating, surprising and wonderful.

Jury members and the vice-chairman of the Monaco circus

festival preparation committee described the DPRK's stunt as beautiful, dynamic, refreshing and thrilling, and hoped the "Flyers" would participate in the Monaco festival.

"Our acrobats are resolved to polish up their techniques and perfect the artistic representation in order to retain the championship on the world arena," said coach Jong Yong Chil.

By Kwon Hyo Song PT

## ZOO

## Young animals added to population

Inhabitants have increased at the Central Zoo in Pyongyang.

This year, over 20 species of animals brought forth some 180 younglings, including *papio hanadryas*, Formosan deer and *Ovis aries*.

A German shepherd dog littered four puppies and the mother dog and pups are all in good health, said Ri Chang Hyok, chief of the dog house.

Among the young animals, there is the second generation of Humboldt penguin, a gift animal presented to Supreme Leader Kim Jong Un in August 2013 by the CEO and advisor to the president of a Russian company.

In actuality, it was not easy

to ensure the smooth breeding of penguin which lives in the polar regions. Keepers, however, succeeded in breeding a penguin chick in close cooperation with researchers by improving the living environment, feeding and anti-epizootic work for the mother penguin.

*Selenarctos thibetanus* G. Cuvier also gave birth to cubs.

Though it has been only two months since their birth, the

bear cubs cling to their mother's back and stomach and make sweet gestures, giving delight to visitors.

"Children particularly love German shepherd dogs. And their puppies are very cute. The Central Zoo is much favoured not only by children but also by adults," said Kim Il Sim living in Pothonggang District, Pyongyang.

By Pang Un Ju PT



**Four German Shepherd puppies play at the Central Zoo in Pyongyang.**

## CONSERVATION

## NCUK seeks cooperation to protect nature

"The Nature Conservation Union of Korea has intensified its engagement since it joined the the International Union for Conservation of Nature in September 1963," Kwak Il Chon, an official of the NCUK Central Committee, told KCNA.

NCUK is an umbrella group comprising 12 associations for

the protection of animals, forests and marine resources.

The NCUK has worked to further promote international cooperation in recent years.

Under a bilateral joint agreement with the Miranda Naturalists Trust of New Zealand, it conducted several rounds of joint survey of

migratory birds along the coast of the West Sea of Korea, helping to protect endangered migratory birds.

Now the NCUK pushes ahead with a programme to boost exchange with the Mongolian Insect Lover's Society.

It also plans to launch ecology tourism in cooperation with tourism experts and fans.

It attaches great importance to the role of the Korea Environment Fund for sustainable development and effective use of nature.

Compiled from KCNA



## STATEMENT

## Spain urged to get to the bottom of DPRK embassy attack

*A spokesperson for the DPRK Ministry of Foreign Affairs told KCNA on March 31 as regards the recent assault on the DPRK embassy in Spain:*

A grave terrorist attack occurred on February 22, in which an armed group assaulted the DPRK embassy in Spain and bound, beat and tortured the embassy staff members and extorted communications

apparatuses.

Illegal intrusion into and occupation of diplomatic mission and act of extortion in it are a grave infringement of state sovereignty and a flagrant violation of international law, and such acts should never be tolerated over the world.

We are following the rumours of all hues now circulating that the FBI of the United States and

members of an anti-DPRK "group" were involved in the terror attack, and so on.

We expect that the authorities concerned in Spain, the place of the incident, carry out an investigation into the incident to the last in a responsible manner and bring the terrorists and their wire-pullers to justice in conformity with international law, and we will wait for the result with patience.

## COMMENT

## Japan needs to follow others' examples

To boldly admit and honestly apologize and compensate for past wrongdoings is proper conduct not to repeat them.

Since the end of the Second World War, Germany has taken sincere measures out of a desire to be an honourable member of the world.

It committed itself in the eyes of the international community to paying reparations not only to war victims but also to those who had suffered mental and material losses during the war, and honoured the promise in a systematic way.

To this end, it set up a foundation in 2000 and paid 4.337 trillion euros in war reparations to international NGOs and 1.6 million victims of forced labour in some 100 countries until 2006.

It made such an endeavour continuously and paid off the compensation by 2010.

Shortly ago, the UK made a break with its unsavoury past.

On March 20, the British war museum officially returned a braid of hair of Emperor Theodore II to Ethiopia.

At the time, the Ethiopian emperor committed suicide after losing the battle of Magdala in 1868, and the British expedition brought the emperor's braid to Britain.

The return of the braid aroused positive response from the international community as it reflected the UK's will to liquidate the past and go towards future.

Nevertheless, there is a country

going against such a trend.

Japan is rushing towards militarism as it totally denies its bloodstained past crimes by cherishing the unfulfilled ambition of the past.

Rather than compensating for the past, the criminal state of World War II has gone so far as to whitewash its crimes.

Arguing that it had lost the Pacific war as it was weak, Japan regularized a pilgrimage to the Yasukuni Shrine that honours the country's war dead including class A war criminals, set it as a political target to build a military power and ceaselessly goes on with its risky gamble of building up the Self-Defence Forces into an army for overseas invasion.

At present, it maintains 200 000 servicemen in active service on a constant basis and its Maritime Self-Defence Force ranks second in combat capability after the US Navy.

It is steadily escalating tension in the region while provoking territorial disputes with neighbouring countries.

The international community is keeping a vigilant eye on Japan which is making a headlong rush towards a military power.

There can be no future without the liquidation of the past.

Japan had better keep in mind that as long as it runs counter to the trend of the times, it can never remove the stigma of a war criminal state.

Jong Pom Mi

## GREENING

## Nations endeavour to build forests

Forests are being denuded due to seriously abnormal climatic conditions, consequent forest fire and indiscriminate felling.

Last February, a forest fire broke out on South Island of New Zealand to destroy over 2 000 hectares of forests and 3 500 residents were evacuated.

Random felling of trees has destroyed ecosystems, which is hastening desertification. Its victims are over 100 countries and more than two billion people. Experts estimate that if forest areas keep decreasing at the present rate, forests will completely

disappear on the earth after 100 years.

Many countries pay close attention to the creation of forests as they regard them as precious wealth of great significance for human existence and economic development.

The Mongolian government has observed the second Saturdays of May and October as tree planting days since 2010 in order to raise public awareness of the importance of afforestation.

Uganda is conducting a tree planting campaign according to the plan to restore about 136 000

hectares of forests every year till 2040. Its people are encouraged to plant trees in celebration of marriage, birth and graduation.

Java of Indonesia has a regulation requiring wedding couples to plant 20 trees, and some local areas of Poland have a regulation stipulating that the families that have given birth to children shall plant three trees.

In Bonn, Germany, it is customary for a young man to send a white birch sapling to a young woman in tree planting season.

By Choe Yong Nam PT

## CHINA

## People encouraged to learn after Lei Feng

Recently, there was the national voluntary service promotion conference in Beijing, China.

The head of the Publicity Department of the Central Committee of the Communist Party of China said that the Chinese people should make national voluntary service a social habit, underscoring the need to increase voluntary service organs and ranks and set up a solid mechanism for ensuring voluntary service by actively embodying the spirit of Lei Feng.

At present, China strives to educate locals in Lei Feng's spirit so that they can display virtues.

Lei Feng, who is put forward as a model by

the Chinese Party and government, served the army in the 1960s as a squad leader of the transport company of an engineering unit in the People's Liberation Army Shenyang Region.

A CPC member, he possessed noble comradeship, placed the interests of the collective above his and was loyal to his duty. He died in the discharge of his duty at the age of 22 in August 1962.

At the time, Chairman Mao Zedong advanced slogan "Let us model after Lei Feng". From that time, a campaign to learn after him was launched all across China involving broad sections of masses. The essential content of the

spirit of Lei Feng is the spirit of serving the people and making selfless devotion to the people's cause.

The Chinese Party and government held fast to the movement as one of the important ways to promote the construction of socialist spirit and culture and have steadily promoted it as they have worked hard to prepare all the people to be "Lei Feng in the new era". As a result, numerous people were awarded the honorary title of "model in learning after Lei Feng". Among them are soldiers, security officers, civil servants and workers.

By Om Ryong PT

## HATE CRIME

## Racism rears its ugly head

Recently, racism has resurfaced across the world.

At an international meeting last year, the President of the UN General Assembly warned of the unnerving growth in such tendencies as racism, calling on all the countries to fight against them.

According to the results of a survey conducted by a foreign institute in 2017, more than half of the respondents expressed concern over the increasing racist crimes, a big challenge to society, which is double the number of 2011.

In Macerata, Italy, the interracial conflict was escalated to give rise to social apprehensions. It was prompted by an extremist's drive-by random shooting at African immigrants. With the incident as a momentum, a large-scale anti-

racist rally and demonstration were staged, lessons were cancelled at schools and shops were shut down.

South Africa, which had suffered from racial segregation, is concerned about such abnormal situations in different countries.

At present, the South African government is putting spurs to the efforts to eliminate the remnants of apartheid.

A typical example is land reform.

Since the termination of the apartheid system in 1994, it has confiscated many acres of land from white landlords and distributed them to black peasants.

It is also working to root out racial segregation in sports and other fields.

By Min Chol PT



## GAMES

# Mangyongdae Prize Games open

The Mangyongdae Prize Games in celebration of the Day of the Sun opened on April 1.

The event draws excellent players from over 100 local sports clubs and they will compete in over 460 categories of 37 sports.

The men's first-division football tournament is attracting particular interest of the spectators as it takes place in the midst of the 2018-2019 DPRK Premier League.

Most of football fans see Sonbong and Sobaeksu which

were successful in recent matches with changes in team lineups and playing tactics as dark horses threatening the positions of local powers.

The figure skating event, which began at the Ice Rink in Pyongyang this week, is now going on in the individual, pair and ice dance categories.

On April 1 there were youth and senior women's individual (short course) and ice dance (rhythmic dance) matches.

Taesongsan made a clean sweep of all trophies in the

senior and youth female individual, ice dance and youth events.

Taesongsan's Ryom Tae Ok and Kim Ju Sik, who shot up in the rankings in the pair skating of the 2018 ISU four-continental figure skating championships, won the gold medals in the pairs event.

Men's and women's professional boxing was also the focus of attention of the spectators.

On April 1 there were boxing matches in the men's 47.61 kg and 61.23 kg and women's 50.80 kg, 52.16 kg and 46.26 kg divisions.

"Though it is not so long since professional boxing began in the country, the DPRK players have achieved successes as they won the 53.52 kg professional boxing event at the IBF Asian Championships in Ulan Bator, Mongolia, in 2013 and the 48.98 kg and 52.16 kg events at the WBCF professional boxing contest," said O Won Uk, an official of the Boxing Association.

The players showed thrilling scenes with resolute fighting spirit and perseverance.



A scene of a match of the 13th national agricultural workers basketball tournament.

KCNA

By Jong Tang Song PT

## RELIC

## Patterned painting graces old Korean architecture

*Tanchong* is a genre of Korean decorative painting intended for adorning wooden structures by means of various patterns and colours.

As part of national heritage of architectural decorative art, it is characterized by harmony of colour and diversity in pattern.

In the primitive ages when fine art was yet to be subdivided into different genres, early humans decorated their dwellings with simple pictures and patterns.

Later, people covered the wooden part of buildings with mineral paint to lengthen the life of the woodwork, which evolved into *tanchong*.

In the period of Koguryo Kingdom (277 BC-AD 668) *tanchong* made remarkable progress in the harmony of colour. The principle of the Korean architectural decorative painting was to adorn the upper part in green and the lower part in red in overall decoration and to make the effective use of the features of warm and cold colours

and heavy and light colours. And according to the makeup of pattern, it was classified into *kumtanchong*, *morutanchong* and *pomtanchong*.

*Kumtanchong* is the luxurious form of *tanchong* and was mostly used in the decoration of the main buildings of temples. For example, it can be found over the whole building of the Taeung Hall of the Pohyon Temple in Mt Myohyang which is mainly adorned with silky patterns.

*Morutanchong* is the moderate form of *tanchong* which is not so simple or complicated. It was used in adorning such structures as palace.

*Pomtanchong* is the simple form of *tanchong* and was widely used for castle turrets.

In addition, a pictorial form of decoration was an efficient means of adornment as seen in the Taeung Hall of the Ryangchon Temple in Kwon County, South Hamgyong Province.

*Tanchong* is still preserved intact in ancient Korean buildings and was inscribed as national ICH element No. 33 on October 24 2016 for state protection.

**Kim Su Yong**, chief of the *tanchong* laboratory of the Korea National Heritage Preservation Agency



PAK CHANG BOK / THE PYONGYANG TIMES

Korea's patterned painting, applied to decorating wooden structures, is still preserved on old buildings.

## MEETING

## DPRK Olympic Committee holds annual meeting

The 2019 general meeting of the DPRK Olympic Committee took place at the People's Palace of Culture in Pyongyang.

It was attended by Vice-Premier Jon Kwang Ho, members of the committee and officials in the sports field.

The meeting reviewed the work of the committee in 2018 and discussed the orientation of its work in 2019.

Kim Il Guk, minister of Physical Culture and Sports who is chairman of the committee, delivered a report.

The speakers referred to the successes made last year and called on players and coaches to continue creating Korean-style playing tactics and methods in order to raise the flag of the DPRK at international events.

The meeting discussed practical issues arising in developing professional sports techniques of the country and effecting a turn in the field of sports science research this year.

Compiled from KCNA



KCNA

The 2019 General Meeting of the DPRK Olympic Committee is held at the People's Palace of Culture.

## FOLKLORE

## Folk events in April

There are two seasonal divisions in April, *Chongmyong* and *Kogu*.

*Chongmyong* which falls on April 5 or 6 means the time when the sky gets clearer and *Kogu*, or seed rains, is the one with useful rains for the growth of cereals, falling on April 20 or 21.

There is a Korean saying that "If there is no rain in *Kogu*, the ground gets dry three feet deep". It shows that the Korean people have attached great significance to the rain

on *Kogu* since olden times.

Characteristic of their life customs on *Chongmyong* is that they visit the graves of ancestors.

That day, the Koreans went to the graves of their ancestors, held memorial services for them and spent a good time.

On *Kogu* seeds of rice, foxtail millet, sweet potato, sesame, spring radish and other crops were sown. As it was an important occasion which decided the harvest of the year's farming, all farmers busied themselves with farm work.

On *Chongmyong* they liked to eat glutinous rice cracker covered with pine pollen and pattern-pressed candy made of honey mixed with pine pollen. On *Kogu* fried glutinous rice cake with azalea flowers and mung-bean noodles dyed red were famous.

These were also a good fishing period. A large quantity of fishes were caught around *Chongmyong* and *Kogu*.

**Ko Ju Il**, researcher at the Folklore Institute of the Academy of Social Sciences

